United States Department of Agriculture
Natural Resources Conservation Service

Idaho Water Supply Outlook Report February 1, 2008

Irrigated agriculture in Idaho accounts for a very significant part of the state's economy and remains the largest water user group by far. From the high Teton Valley in the east through the Magic Valley and on to the Treasure Valley in the west, more than 10 million acre feet of water may be used in an average year. Most of this water originates from the melting mountain snowpacks and is managed through a complex system of large and small reservoirs and miles of canals, ditches and pipes. Knowledge of the amount of snow accumulating in the mountains through the winter and early spring is critical for efficient and successful management of this precious resource. Streamflow forecasts, snowpack and reservoir storage information published in this report would not be possible without the dedicated and professional cooperation among the many federal, state and local agencies sharing data, and the private and industry individuals making snow measurements in remote areas around the state. NRCS is proud to be the leader in this valuable, cooperative program.

Basin Outlook Reports
and Federal - State - Private Cooperative Snow Surveys

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How forecasts are made

Most of the annual streamflow in the western United States originates as snowfall that has accumulated in the mountains during the winter and early spring. As the snowpack accumulates, hydrologists estimate the runoff that will occur when it melts. Measurements of snow water equivalent at selected manual snow courses and automated SNOTEL sites, along with precipitation, antecedent streamflow, and indices of the El Niño / Southern Oscillation are used in computerized statistical and simulation models to prepare runoff forecasts. These forecasts are coordinated between hydrologists in the Natural Resources Conservation Service and the National Weather Service. Unless otherwise specified, all forecasts are for flows that would occur naturally without any upstream influences.

Forecasts of any kind, of course, are not perfect. Streamflow forecast uncertainty arises from three primary sources: (1) uncertain knowledge of future weather conditions, (2) uncertainty in the forecasting procedure, and (3) errors in the data. The forecast, therefore, must be interpreted not as a single value but rather as a range of values with specific probabilities of occurrence. The middle of the range is expressed by the 50% exceedance probability forecast, for which there is a 50% chance that the actual flow will be above, and a 50% chance that the actual flow will be below, this value. To describe the expected range around this 50% value, four other forecasts are provided, two smaller values (90% and 70% exceedance probability) and two larger values (30%, and 10% exceedance probability). For example, there is a 90% chance that the actual flow will be more than the 90% exceedance probability forecast. The others can be interpreted similarly.

The wider the spread among these values, the more uncertain the forecast. As the season progresses, forecasts become more accurate, primarily because a greater portion of the future weather conditions become known; this is reflected by a narrowing of the range around the 50% exceedance probability forecast. Users should take this uncertainty into consideration when making operational decisions by selecting forecasts corresponding to the level of risk they are willing to assume about the amount of water to be expected. If users anticipate receiving a lesser supply of water, or if they wish to increase their chances of having an adequate supply of water for their operations, they may want to base their decisions on the 90% or 70% exceedance probability forecasts, or something in between. On the other hand, if users are concerned about receiving too much water (for example, threat of flooding), they may want to base their decisions on the 30% or 10% exceedance probability forecasts, or something in between. Regardless of the forecast value users choose for operations, they should be prepared to deal with either more or less water. (Users should remember that even if the 90% exceedance probability forecast is used, there is still a 10% chance of receiving less than this amount.) By using the exceedance probability information, users can easily determine the chances of receiving more or less water.

IDAHO WATER SUPPLY OUTLOOK REPORT

February 1, 2008

SUMMARY

January continued where December left off, bringing much needed moisture into Idaho and the western US. Below normal temperatures, not just colder than the past few years, but subfreezing temperatures in January kept snow falling light and dry allowing deep fluffy powder to accumulate in the mountains. As a result, snow depths are well above average, especially in valley locations, however, the actual amount of water in the snowpack is not unusually high, except in low elevations in the Panhandle. January mountainous precipitation amounts varied across the state ranging from average for a few sites along the Montana border, Snake headwaters in Wyoming and Bear River, to 250% of average in the Big and Little Lost basins. Precipitation since the water year started October 1 is above average except in the Bear River which is normal. Currently, snow water content levels range from 91% of average in the Bear River basin to 128% in the Weiser and Little Salmon basins. These snowpacks are only 60-80% of their early April seasonal peaks. If we don't receive any more snow between now and spring, our snowpacks will be below average on April 1. On the positive side, many basins in central Idaho just exceeded, or are near exceeding, the peak snow water content amounts that occurred in March 2007. Reservoir storage remains below average across the state except for Pend Oreille, Dworshak and Cascade reservoirs. With a near to above average mid and higher elevation snowpack, most streams are forecast at 85-115% of average except for the Bear River which is forecast at 60%.

The wild card this year is how the above normal low elevation snowpack melts: gradually from moderate temperatures or rapidly from warm, wet weather. A rain-on-snow event would release abundant amounts of water and quickly fill streams causing possible high flows especially where ice jams are present. This type of event would boost this year's runoff by providing a greater volume and increase hydropower production. In contrast, a gradual warming event would allow the low elevation snow to slowly fade away and become a minimal part of this year's water supply rather than making headlines.

SNOWPACK

The snow water content of Idaho's snowpacks varies from just below average in the Bear River basin to twice normal in the populated, lower elevations of Idaho's Panhandle. This is good news for Idaho's numerous water users, but not so good if you have to shovel it. Low elevation stations in the Panhandle are the highest in the state with Benton Meadow Snow Course, 2,370 feet in the Priest basin, and Fourth of July Summit Snow Course, 3,200 feet in the Coeur d'Alene basin, at nearly twice their average amount of snow water; third highest amount since records start in 1960. Overall, the Panhandle Region and Clearwater basin snowpack is 111% of average. The Salmon basin is 115% of average. The Little Salmon and Weiser basin snowpacks are 128% of average. Snowpacks are 110-130% of average across central Idaho and decreases to 108% in the Henrys Fork and to 95% for the Snake River above Palisades Reservoir. Owyhee basin snowpack is 125% of average when the 11 aerial markers are included. With about two months of the snow accumulation season still to come, more snow is needed to ensure an adequate water supply in the later half of summer, but the short term concern is how the low elevation snow will melt.

PRECIPITATION

Storm after storm continued moving into Idaho from the Pacific Northwest and the Sierra Nevada Mountains bringing abundant moisture to Idaho. The Big Lost, Little Lost and Little Wood basins received the greatest amounts, twice their normal January precipitation amounts. Unfortunately, the storms did not reach all the way to the Upper Snake River basin in Wyoming where January precipitation above Palisades Reservoir was the lowest in the region at 109% of average. Elsewhere in the state, amounts ranged from 120-170% of average. Cold temperatures allowed the snow to fall with a low density and low percent moisture. The light snow made for great skiing and made it easier to shovel; but the depth and amount of snow slowly crept up in Idaho's populated valleys making it increasingly difficult to shovel over the berms. Then, snowplows, doing their job, while you did yours, plowed compacted snow back in your driveway. Idaho's mountain roads are becoming skinny, looking like tunnels though the deep snow. Roof failures and concerns from snow loads have also been observed in different parts of the state as well as snow pushing against windows.

The National Weather Service in Boise reported that the depth of snow on the ground in some valley locations is close to daily record depths but short of all time records. Below are the impressive depths from the NWS co-operative network for January 31:

Location	2008 Depth	Previous Deepest	Greatest Depth Ever
Cascade	47 inches*	42 inches (1969)	58 inches 2/7/49
McCall	48 inches	63 inches (1969)	71 inches 1/15/71
New Meadows	43 inches*	39 inches (2002)	48 inches 2/11/49
Deadwood Dam	104 inches**	82 inches (1969)	84 inches 1/15/71

* New January 31 greatest depth measured
** Greatest depth measured

RESERVOIRS

Little has changed in terms of reservoir storage in Idaho the past month. Cold January temperatures with no warm spell kept streamflows at a minimum. In fact, a 17 mile ice jam was reported between the towns of North Fork and Salmon on the Salmon River. Only Pend Oreille Lake, Dworshak, Cascade, Grassy Lake and Ririe reservoirs are storing above average amounts. The lowest storage is in Magic Reservoir at 24% of average followed by Bear Lake at 39% of average. Palisades Reservoirs and Jackson Lake have a combined storage of 54% of average, 37% full; a year ago they were 72% full. Salmon Falls Reservoir is half of average, while Oakley Reservoir is 87% of average. The Boise reservoir system is 76% of average, 44% full, while the Payette reservoir system is average. Carryover reservoir storage started much lower this year when compared to last year; however, current snowpacks have already exceeded last year's peak snow water content in the west-central and central basins. This is good news, as an average or better snowpack on April 1 is needed across most of the state to provide adequate surface irrigation supplies.

Note: NRCS reports reservoir information in terms of usable volumes, which includes both active, inactive and in some cases, dead storage. Other operators may report reservoir contents in different terms. For additional information, see the reservoir definitions in this report.

STREAMFLOW

January streamflows throughout the state remained low as a result of very cold temperatures and river ice. Historically, Idaho and western Wyoming rivers have one to two more months of low flows before warmer temperatures begin melting snow and runoff begins. Fall rains were ample and above average throughout the northwest, so runoff should be efficiently delivered into the streams this year, perhaps too efficiently in some basins. However, keep in mind the fall rains were ample last year, but the dry second half of winter and spring counteracted most benefits of the good soil moisture. Some areas such as the Panhandle of Idaho and the Weiser Basin have above average low-elevation snow that could

potentially contribute to flooding of some rivers if a warm, moist storm adds runoff during a rapid snowmelt event. Streams are forecast at 85-110% of average across most of Idaho. River watchers can count on multiple streamflow peaks this year due to the abundant low elevation snow. Timing of streamflow peaks will depend on air temperatures and possible rain that will control the rate of snowmelt.

Note: Forecasts published in this report are NRCS guidance forecasts. NRCS is using SNOTEL data in a timely manner to provide timely streamflow forecast for users. Official jointly coordinated and published forecasts by the USDA Natural Resources Conservation Service and the US Department of Commerce, NOAA, National Weather Service are available at the joint west-wide Water Supply Outlook for the Western US at http://www.wcc.nrcs.usda.gov/wsf/westwide.html.

RECREATION

Big storm cycles bookmarked January bringing lots of powder to Idaho's mountains during the first and last weeks of the month. All basins in the state received above average snow totals for the month, but the central mountains did the best with 150-250% of average in the Wood and Lost basins. One day snowfall totals in excess of a foot causes powder fever for snow riders anxious to lay down first tracks but it's important to remember that the snowpack is particularly sensitive to big changes. In January this was reflected by avalanche danger ratings across the state reaching the high and extreme range. These ratings mean natural and human triggered avalanches are likely or certain. During these periods its best to avoid avalanche terrain that is not being actively controlled so stay within ski resorts boundaries. The number of US avalanche fatalities this season currently stands at 28 with the winter barely half over; this year's total is already greater than or equal to the totals from any of the past four winters. Although Idaho has been spared from a fatality, we haven't been spared from a weak snowpack which could produce one in the future. The cold, dry spells in November, early December and mid-January caused faceting within the snowpack yielding an underlying snowpack with a persistently weak structure particularly in the central mountains. This kind of sugary layer in the snowpack is not just located in remote backcountry terrain it's also present on slopes near mountain towns where your kids might go sledding. For example, on January 28th there was an avalanche on a slope directly above Woodside Elementary in Hailey which measured 400 feet wide and broke two feet deep; fortunately no one was injured but it teaches an important lesson that avalanches can occur close to home. Enjoy the powder, but be safe out there and monitor avalanche conditions in your area by visiting www.avalanche.org.

Looking towards the future the La Nina storm track is forecast to bring greater than average snow to the mountains between February and April so expect a good, long whitewater season this summer. Currently above average snowpacks (105-115%) are found in the Salmon, Selway, Lochsa, Clearwater, Payette and Boise basins. Streamflow forecasts for these basins are in the 95-110% of average range. The desert basins south of the Snake River have less snow than average but not by much. Snowpacks are 94% of average in Bruneau basin and 125% in Owyhee basin. The cold storms at the end of January greatly boosted the low elevation snowpacks in these basins which could result in high flows if the right combination of warm temperatures and/or rain develops. Know your comfort zones on the river if big flows materialize and watch for additional logs and debris from burned areas. Current indicators are that Idaho's boating season will be longer than recent years on uncontrolled rivers. Consider boating after the seasonal snowmelt peak has occurred to avoid being surprised by increasing flows and the potential of woody river debris.

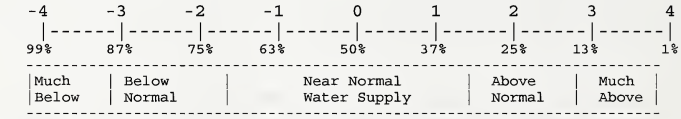
IDAHO SURFACE WATER SUPPLY INDEX (SWSI) *As of February 1, 2008*

The Surface Water Supply Index (SWSI) is a predictive indicator of surface water availability within a watershed for the spring and summer water use season. The index is calculated by combining pre-runoff reservoir storage (carryover) with forecasts of spring and summer streamflow. SWSI values are scaled from +4.0 (abundant supply) to -4.0 (extremely dry), with a value of zero indicating a median water supply as compared to historical occurrences. The SWSI analysis period is from 1971 to present.

SWSI values provide a more comprehensive outlook of water availability by combining streamflow forecasts and reservoir storage where appropriate. The SWSI index allows comparison of water availability between basins for drought or flood severity analysis. Threshold SWSI values have been determined for some basins to indicate the potential for agricultural irrigation water shortages.

BASIN or REGION	*SWSI Value*	*Most Recent Year With Similar SWSI Value*	*Agricultural Water Supply Shortage May Occur When SWSI is Less Than*
PANHANDLE	-0.3	1993	NA
CLEARWATER	1.8	1999	NA
SALMON	1.2	2006	NA
WEISER	1.0	1997	NA
PAYETTE	0.3	2003	NA
BOISE	0.3	2000	-1.6
BIG WOOD	-0.1	2000	-0.2
LITTLE WOOD	0.8	2005	-2.2
BIG LOST	1.0	1996	-0.1
LITTLE LOST	0.1	1996/2006	0.4
HENRYS FORK	0.2	2006	-3.3
SNAKE (HEISE)	-0.8	1981/1993	-1.6
OAKLEY	-0.3	2007	-1.0
SALMON FALLS	-1.4	2005	-1.6
BRUNEAU	-0.8	2004	NA
BEAR RIVER	-3.0	1992/1993	-3.2

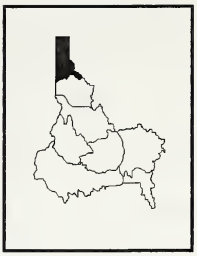
SWSI SCALE, PERCENT CHANCE OF EXCEEDANCE, AND INTERPRETATION

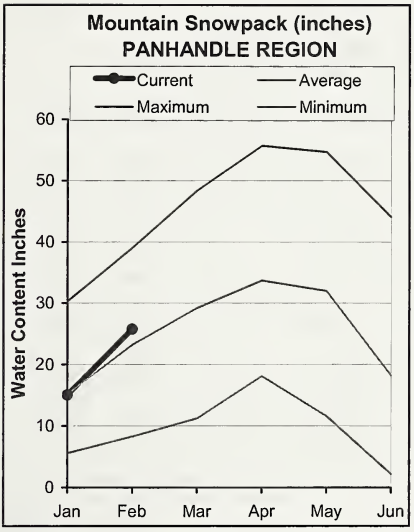


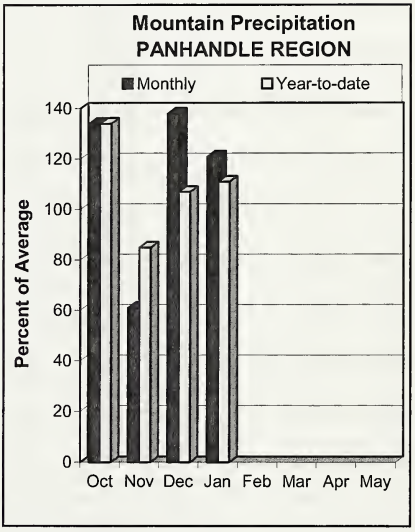
NA = Not Applicable

Note: The Percent Chance of Exceedance is an indicator of how often a range of SWSI values might be expected to occur. Each SWSI unit represents about 12% of the historical occurrences. As an example of interpreting the above scale, the SWSI can be expected to be greater than -3.0, 87% of the time and less than -3.0, 13% of the time. Half the time, the SWSI will be below and half the time above a value of zero. The interval between -1.5 and +1.5 described as "Near Normal Water Supply," represents three SWSI units and would be expected to occur about one-third (36%) of the time.

PANHANDLE REGION
FEBRUARY 1, 2008







WATER SUPPLY OUTLOOK

La Nina continues to bring snow to the Panhandle. The region's snowpack is 111% of average, but residents may feel like this winter is more than just 11% above average. This feeling is probably because the snowpack at lower elevations is actually farther above average than the region as a whole. To illustrate this point consider our four long-term SNOTEL sites between 3,200-4,800 feet elevation (Humboldt Gulch, Mica Creek, Sherwin and Quartz Peak) whose snowpack is 146% of average for February 1 compared with 111% for the entire region. Precipitation since October 1 at these four sites is 118% of average compared to 111% for the region. This indicates that lower elevations that normally receive a mixture of snow and rain have seen only snow, elevating the snowpack percentages over precipitation percentages. February 1 snow levels at these sites are not record breaking though; 1997 had significantly more. The averages increase farther moving down in elevation. Benton Meadow Snow Course, at 2,370 feet in the Priest Basin, and Fourth of July Summit Snow Course, at 3,200 feet in the Coeur d'Alene Basin, has almost twice their average amount of snow water; third highest amount since records start in 1960. Storage in Pend Oreille Lake is 121% of average, 58% of capacity. Coeur d'Alene Lake contains 33% of average, 16% of capacity, while Priest Lake has 90% of average and 42% of capacity. With all the low elevation snow there is a risk of high peak flows with temperature spikes or rain producing rapid melting of the abundant low elevation snow. Summer streamflow forecasts range from 90-105% of average for the region for the April–September period which are more indicative of the higher elevation snowpack.

PANHANDLE REGION

Streamflow Forecasts - February 1, 2008

Forecast Point	Forecast Period	<<====== Drier ====== Future Conditions ======= Wetter =====>> Chance Of Exceeding * 90% (1000AF)	70% (1000AF)	50% (Most Probable) (1000AF)	(% AVG.)	30% (1000AF)	10% (1000AF)	30-Yr Avg. (1000AF)
KOOTENAI at Leonia (1,2)	APR-JUL	5680	6350	6660	95	6970	7640	7040
	APR-SEP	6570	7330	7680	95	8030	8790	8120
MOYIE RIVER at Eastport	APR-JUL	330	370	400	99	430	470	405
	APR-SEP	345	385	415	99	445	485	420
SMITH CREEK	APR-JUL	105	119	129	105	139	153	123
	APR-SEP	108	124	135	105	146	162	129
BOUNDARY CREEK	APR-JUL	106	117	125	102	133	144	123
	APR-SEP	113	124	132	102	140	151	129
CLARK FK at Whitehorse Rpds (1,2)	APR-JUL	9540	9990	10200	90	10400	10900	11300
	APR-SEP	10400	11000	11200	90	11400	12000	12500
PEND OREILLE Lake Inflow (2)	APR-JUL	8250	10000	11400	90	12400	14200	12700
	APR-SEP	9070	11000	12500	90	13600	15500	13900
PRIEST near Priest River (1,2)	APR-JUL	545	720	800	98	880	1060	815
	APR-SEP	580	770	855	98	940	1130	870
NF COEUR D'ALENE RIVER at Enaville	APR-JUL	445	595	700	95	805	955	740
	APR-SEP	480	630	740	95	840	990	780
ST. JOE at Calder	APR-JUL	825	1010	1140	100	1270	1450	1140
	APR-SEP	880	1070	1200	100	1330	1520	1200
SPOKANE near Post Falls (2)	APR-JUL	1800	2140	2500	98	2600	2940	2550
	APR-SEP	1910	2250	2590	98	2710	3050	2650
SPOKANE at Long Lake (2)	APR-JUL	2010	2410	2790	98	2950	3350	2850
	APR-SEP	2220	2640	3010	98	3200	3620	3070

PANHANDLE REGION

Reservoir Storage (1000 AF) - End of January

Reservoir	Usable Capacity	*** Usable Storage *** This Year	Last Year	Avg
HUNGRY HORSE	3451.0	2552.0	2881.0	2214.7
FLATHEAD LAKE	1791.0	914.7	1056.0	971.2
NOXON RAPIDS	335.0	306.2	302.5	310.9
PEND OREILLE	1561.3	910.2	676.2	749.3
COEUR D'ALENE	238.5	37.8	61.1	115.6
PRIEST LAKE	119.3	49.9	48.0	55.5

PANHANDLE REGION

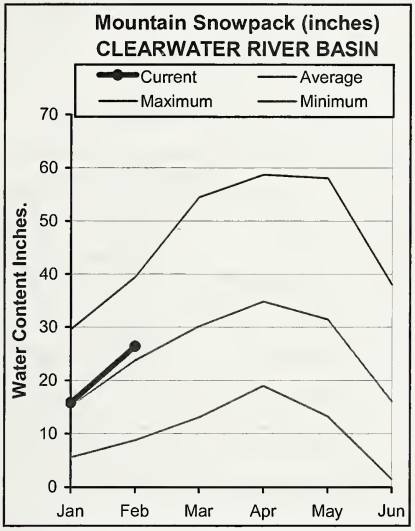
Watershed Snowpack Analysis - February 1, 2008

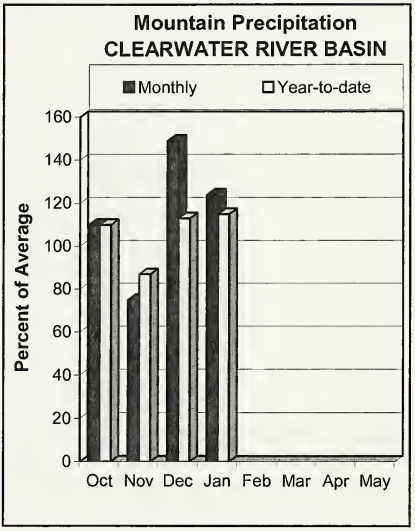
Watershed	Number of Data Sites	This Year as % of Last Yr	Average
Kootenai ab Bonners Ferry	19	107	110
Moyie River	8	88	101
Priest River	3	128	118
Pend Oreille River	67	123	101
Rathdrum Creek	2	173	147
Hayden Lake	0	0	0
Coeur d'Alene River	6	142	124
St. Joe River	4	128	109
Spokane River	10	143	122
Palouse River	1	149	162

* 90%, 70%, 30%, and 10% chances of exceeding are the probabilities that the actual flow will exceed the volumes in the table.

(1) - The values listed under the 10% and 90% Chance of Exceeding are actually 5% and 95% exceedance levels.
(2) - The value is natural flow - actual flow may be affected by upstream water management.

CLEARWATER RIVER BASIN
FEBRUARY 1, 2008





WATER SUPPLY OUTLOOK

As predicted La Nina storms have kept the Clearwater basin's snowpack above average at 111%. Precipitation since October first is 115% of average, better than last year. This winter the best snowpack is in the Palouse basin at 162% of average based on the Moscow Mountain SNOTEL site. The Lochsa basin has 114% of average, the Selway basin has 110% and the North Fork Clearwater basin has the lowest at 108%. Storage in Dworshak Reservoir is 104% of average, 65% of capacity. Stormy weather prevented our normal helicopter survey of the basin the last week of January. Fortunately the majority of our critical measurements come from automated SNOTEL sites allowing forecasters to predict April-September streamflow between 105-110% of average. Looking to the future expect La Nina conditions to bring above average precipitation in February and indicators are pointing toward an ideal river running season this spring. Water supplies should be adequate.

CLEARWATER RIVER BASIN
Streamflow Forecasts - February 1, 2008

Forecast Point	Forecast Period	<<====== Drier ====== Future Conditions ======= Wetter =====>> Chance Of Exceeding * 90% (1000AF)	70% (1000AF)	50% (Most Probable) (1000AF)	(% AVG.)	30% (1000AF)	10% (1000AF)	30-Yr Avg. (1000AF)
Selway R nr Lowell	APR-JUL	1810	2040	2190	106	2340	2570	2060
	APR-SEP	1920	2140	2300	106	2460	2680	2170
Lochsa R nr Lowell	APR-JUL	1380	1550	1660	109	1770	1940	1530
	APR-SEP	1450	1620	1740	108	1860	2030	1610
Dworshak Reservoir Inflow	APR-JUL	2080	2590	2820	107	3050	3560	2640
	APR-SEP	2240	2750	2990	107	3230	3740	2800
Clearwater R at Orofino	APR-JUL	3910	4730	5100	110	5470	6290	4650
	APR-SEP	4120	4990	5380	110	5770	6640	4900
Clearwater R at Spalding	APR-JUL	6190	7500	8100	109	8700	10000	7430
	APR-SEP	6560	7940	8570	109	9200	10600	7850

CLEARWATER RIVER BASIN
Reservoir Storage (1000 AF) - End of January

Reservoir	Usable Capacity	*** Usable Storage *** This Year	Last Year	Avg
DWORSHAK	3468.0	2254.7	2386.7	2170.7

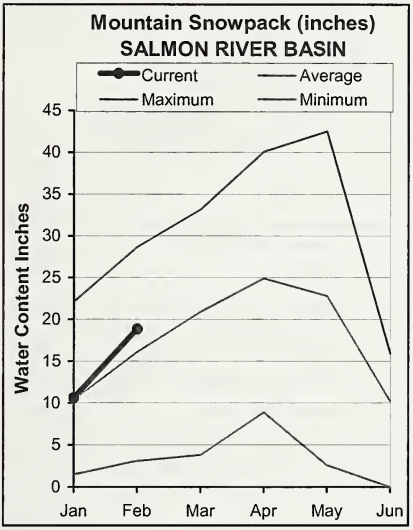
CLEARWATER RIVER BASIN
Watershed Snowpack Analysis - February 1, 2008

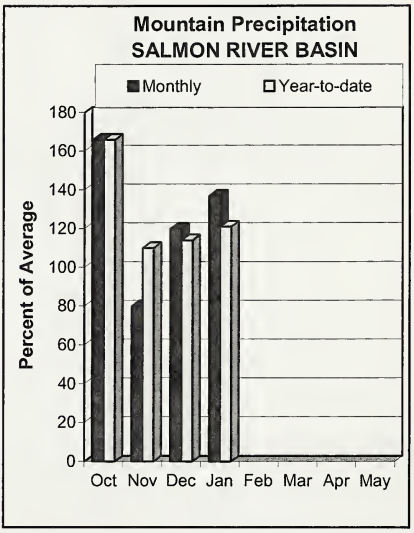
Watershed	Number of Data Sites	This Year as % of Last Yr	Average
North Fork Clearwater	9	130	108
Lochsa River	4	134	114
Selway River	5	132	110
Clearwater Basin Total	18	133	111

* 90%, 70%, 30%, and 10% chances of exceeding are the probabilities that the actual flow will exceed the volumes in the table.

(1) - The values listed under the 10% and 90% Chance of Exceeding are actually 5% and 95% exceedance levels.
(2) - The value is natural flow - actual flow may be affected by upstream water management.

SALMON RIVER BASIN
FEBRUARY 1, 2008





WATER SUPPLY OUTLOOK

The snowpack in the Salmon River basin is 115% of average. Our snow measuring network indicates that snow is well distributed across the elevation gradient between 5,300 and 9,200 feet. Snow measurements below 7,000 feet are 119% of average while those above 7,000 feet average 111%. Due to the remoteness of the Salmon basin there are no snow measuring sites below 5,000 feet, however looking at snow conditions in bordering areas it is fair to say that a significant snowpack exists below 5,000 feet. For example Webb Creek Snow Course at 4,720 feet near Winchester has 8.4 inches of snow water; this is 131% of average. The snow below 5,000 feet is of interest because that's the zone most likely to produce peak runoff should it melt rapidly during a rain-on-snow event. A free flowing river like the Salmon cannot be regulated, so if conditions combine in a synergistic way the 115% of average snowpack could produce an impressive peak flow. This is a scary prospect considering the number of burned acres in the watershed. January precipitation was 137% of average and water year to date precipitation since October stands at 121%. Summer streamflow volumes are forecast for 104% of average for the Salmon River at Salmon, while the Lemhi River near Lemhi and Salmon River at White Bird are both forecast at 110%. The highest forecast is 114% of average for the Middle Fork Salmon River. Time will tell how the snow melts so keep an eye on the horizon for a warm storm which could produce a rapid melt.

SALMON RIVER BASIN

Streamflow Forecasts - February 1, 2008

Forecast Point	Forecast Period	<<====== Drier ====== Future Conditions ======= Wetter =====>> Chance Of Exceeding * 90% (1000AF)	70% (1000AF)	50% (Most Probable) (1000AF)	(% AVG.)	30% (1000AF)	10% (1000AF)	30-Yr Avg. (1000AF)
Salmon R at Salmon	APR-JUL	560	795	900	105	1010	1240	855
	APR-SEP	645	915	1040	104	1160	1440	1000
Lemhi R nr Lemhi	APR-JUL	58	79	95	111	113	141	86
	APR-SEP	72	97	115	110	135	167	105
MF Salmon R at MF Lodge	APR-JUL	630	790	900	115	1010	1170	785
	APR-SEP	700	880	1000	114	1120	1300	875
Salmon R at White Bird	APR-JUL	4470	5830	6450	110	7070	8430	5850
	APR-SEP	4910	6420	7100	110	7780	9290	6480

SALMON RIVER BASIN

Reservoir Storage (1000 AF) - End of January

Reservoir	Usable Capacity	*** Usable Storage *** This Year	Last Year	Avg

SALMON RIVER BASIN

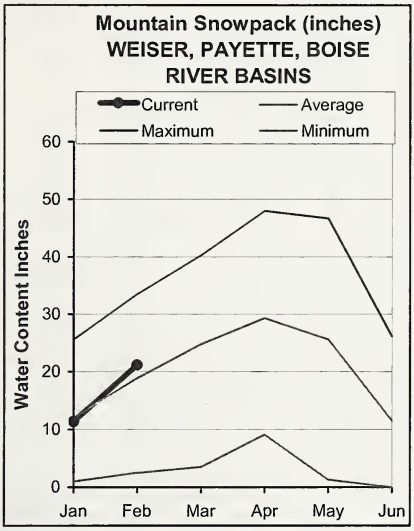
Watershed Snowpack Analysis - February 1, 2008

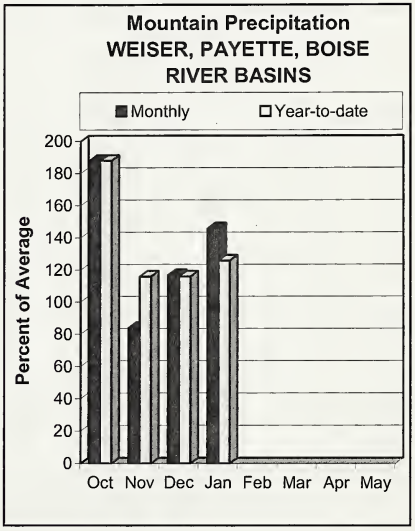
Watershed	Number of Data Sites	This Year as % of Last Yr	Average
Salmon River ab Salmon	9	134	108
Lemhi River	6	155	116
Middle Fork Salmon River	3	137	110
South Fork Salmon River	3	147	117
Little Salmon River	4	173	128
Salmon Basin Total	24	148	115

* 90%, 70%, 30%, and 10% chances of exceeding are the probabilities that the actual flow will exceed the volumes in the table.

(1) - The values listed under the 10% and 90% Chance of Exceeding are actually 5% and 95% exceedance levels.
(2) - The value is natural flow - actual flow may be affected by upstream water management.

WEISER, PAYETTE, BOISE RIVER BASINS FEBRUARY 1, 2008





WATER SUPPLY OUTLOOK

January pumped moisture into the west-central mountains increasing snow water content levels to above average. During the last five days of January, the west-central mountains received snow water content increases from 2 inches in the lower elevations to 5 inches in the higher elevations which equals 15-35 inches of new snow on the ground! The Weiser River basin has one the best snowpacks in the state at 128% of average. The Payette basin snowpack is 113% of average while Boise basin is 107%. With the right conditions, such as warm, wet weather, the Weiser basin has the potential to melt rapidly as we have seen in the past. Other valley locations have record high snow depth, but not record snow water content due to cold air temperatures keeping the snow light and fluffy. Water year to date precipitation is above average at 139% of average in the Weiser, 128% in the Payette and 122% in the Boise. Streams are forecast at 105-115% of average in the Weiser and Payette drainages and near average in the Boise basin for the April-July period. Current reservoir storage in the Boise reservoir system is 76% of average, 44% of capacity, while the Payette system is 101% of average, 63% of capacity. Water supplies should be adequate while runoff could be overwhelming; depending on the how the abundant low elevation snow melts.

WEISER, PAYETTE, BOISE RIVER BASINS
Streamflow Forecasts - February 1, 2008

Forecast Point	Forecast Period	<<====== Drier ====== Future Conditions ======= Wetter =====>> Chance Of Exceeding * 90% (1000AF)	70% (1000AF)	50% (Most Probable) (1000AF)	(% AVG.)	30% (1000AF)	10% (1000AF)	30-Yr Avg. (1000AF)
Weiser R nr Weiser	FEB-JUL	370	610	740	114	880	1230	650
	APR-SEP	245	400	480	114	570	795	420
SF Payette R at Lowman	APR-JUL	365	430	475	108	525	600	440
	APR-SEP	410	485	535	108	590	675	495
Deadwood Reservoir Inflow	APR-JUL	117	145	158	118	171	199	134
	APR-SEP	123	154	168	118	182	215	142
Lake Fork Payette R nr McCall	APR-JUL	77	87	95	112	103	115	85
	APR-SEP	81	92	100	112	108	122	89
NF Payette R at Cascade	APR-JUL	400	525	580	112	635	760	520
	APR-SEP	415	545	605	112	665	795	540
NF Payette R nr Banks	APR-JUL	590	690	760	113	830	930	675
	APR-SEP	605	715	790	113	865	975	700
Payette R nr Horseshoe Bend	APR-JUL	1300	1620	1770	108	1920	2240	1640
	APR-SEP	1340	1720	1900	108	2080	2460	1760
Boise R nr Twin Springs	APR-JUL	445	585	650	102	715	855	635
	APR-SEP	480	630	700	101	770	920	690
SF Boise R at Anderson Ranch Dam	APR-JUL	335	475	540	100	605	745	540
	APR-SEP	360	510	575	99	640	790	580
Mores Ck nr Arrowrock Dam	APR-JUL	75	103	125	95	149	188	131
	APR-SEP	79	109	132	96	157	198	137
Boise R nr Boise	APR-JUN	880	1120	1230	98	1340	1580	1260
	APR-JUL	885	1230	1380	98	1530	1870	1410
	APR-SEP	945	1310	1480	97	1650	2020	1530

WEISER, PAYETTE, BOISE RIVER BASINS
Reservoir Storage (1000 AF) - End of January

Reservoir	Usable Capacity	*** Usable Storage *** This Year	Last Year	Avg
MANN CREEK	11.1	1.4	2.9	4.3
CASCADE	693.2	476.6	493.0	448.4
DEADWOOD	161.9	65.8	102.0	86.3
ANDERSON RANCH	450.2	151.0	306.9	283.6
ARROWROCK	272.2	205.8	230.6	201.1
LUCKY PEAK	293.2	91.8	93.0	106.6
LAKE LOWELL (DEER FLAT)	165.2	79.5	95.9	101.7

WEISER, PAYETTE, BOISE RIVER BASINS
Watershed Snowpack Analysis - February 1, 2008

Watershed	Number of Data Sites	This Year as % of Last Yr	Average
Mann Creek	1	154	120
Weiser River	3	226	128
North Fork Payette	8	161	118
South Fork Payette	5	142	108
Payette Basin Total	14	150	113
Middle & North Fork Boise	5	139	102
South Fork Boise River	7	160	113
Mores Creek	5	140	103
Boise Basin Total	14	150	107
Canyon Creek	2	188	132

* 90%, 70%, 30%, and 10% chances of exceeding are the probabilities that the actual flow will exceed the volumes in the table.

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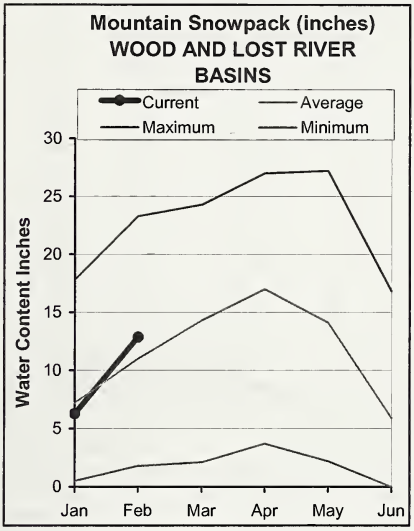
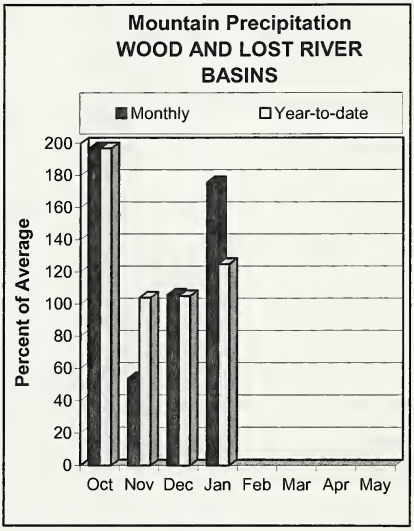
(2) - The value is natural flow - actual flow may be affected by upstream water management.

WOOD and LOST RIVER BASINS
FEBRUARY 1, 2008





WATER SUPPLY OUTLOOK

The storms that moved through the California Sierra Mountains and from the Pacific Northwest brought ample moisture to the mountains in the Wood and Lost basins. These few storms also allowed this region to receive the best January monthly precipitation in the state at 176% of normal, and brought the water year to date precipitation to 125% of average. To put this precipitation into perspective, Dollarhide Summit SNOTEL site, located in the headwaters of the Warm Springs drainage in the Big Wood River, received 9.6 inches of precipitation in January, normal is 5.7 inches; last January only saw 1.5 inches for the month. On one hand, the snow is a blessing for water supply; but on the other hand, it has caused much concern as avalanches have occurred close to town from rapid snow loading on a weak snowpack. Current snowpack water content amounts range from 117% of average in the Big Wood basin to around 120% in the Little Wood, Little Lost and Big Lost basins. Last year the snow was only between 60-70% in these regions. The Little Lost River is forecast at 90% of average, while the Big Lost, Little Wood and Big Wood rivers are forecast near 110%. Camas Creek and Big Wood River below Magic Dam are forecast at near average. The above average streamflow is great news considering the low reservoir storage and previous drought years. Currently, Magic Reservoir is only 24% of average; Little Wood Reservoir is 73% and Mackay Reservoir 78%. The water supply situation is looking promising with two months still to go this winter.

WOOD AND LOST RIVER BASINS
Streamflow Forecasts - February 1, 2008

Forecast Point	Forecast Period	<<====== Drier ====== Future Conditions ======= Wetter =====>> Chance Of Exceeding * 90% (1000AF)	70% (1000AF)	50% (Most Probable) (1000AF)	(% AVG.)	30% (1000AF)	10% (1000AF)	30-Yr Avg. (1000AF)
Big Wood River at Hailey	APR-JUL	127	225	280	110	340	495	255
	APR-SEP	143	255	315	109	385	555	290
Big Wood R ab Magic Reservoir	APR-JUL	100	160	200	105	240	300	190
	APR-SEP	103	167	210	102	255	315	205
Camas Ck nr Blaine	APR-JUL	42	73	100	100	131	183	100
	APR-SEP	43	74	101	100	132	184	101
Big Wood R bl Magic Dam	APR-JUL	123	215	280	97	345	435	290
	APR-SEP	139	235	300	98	365	460	305
Little Wood R ab High Five Creek	MAR-JUL	48	77	100	118	127	171	85
	MAR-SEP	52	83	108	117	136	184	92
Little Wood R nr Carey	MAR-JUL	77	97	111	116	125	145	96
	MAR-SEP	78	100	115	111	130	152	104
Big Lost R at Howell Ranch	APR-JUL	111	155	190	110	230	290	173
	APR-SEP	125	176	215	109	260	330	197
Big Lost R bl Mackay Res	APR-JUL	92	130	155	110	180	220	141
	APR-SEP	113	159	190	111	220	265	172
Little Lost R nr Howe	APR-JUL	17.7	24	28	90	33	41	31
	APR-SEP	22	29	35	90	41	51	39

WOOD AND LOST RIVER BASINS
Reservoir Storage (1000 AF) - End of January

Reservoir	Usable Capacity	*** Usable Storage *** This Year	Last Year	Avg
MAGIC	191.5	20.3	115.0	85.0
LITTLE WOOD	30.0	11.9	24.6	16.3
MACKAY	44.4	21.7	27.1	27.7

WOOD AND LOST RIVER BASINS
Watershed Snowpack Analysis - February 1, 2008

Watershed	Number of Data Sites	This Year as % of Last Yr	Average
Big Wood ab Hailey	8	166	114
Camas Creek	3	180	130
Big Wood Basin Total	11	169	117
Fish Creek	2	182	113
Little Wood River	7	191	121
Big Lost River	5	202	120
Little Lost River	3	168	116
Birch-Medicine Lodge Cree	2	156	110
Camas-Beaver Creeks	4	215	137

* 90%, 70%, 30%, and 10% chances of exceeding are the probabilities that the actual flow will exceed the volumes in the table.

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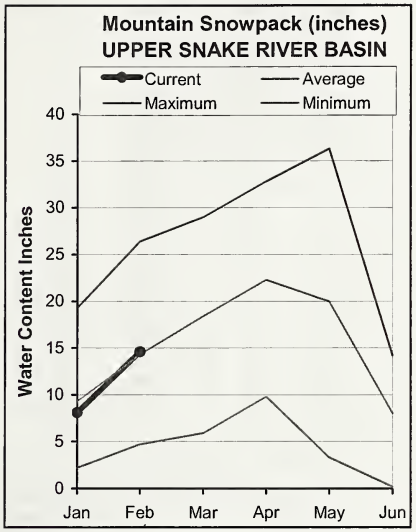
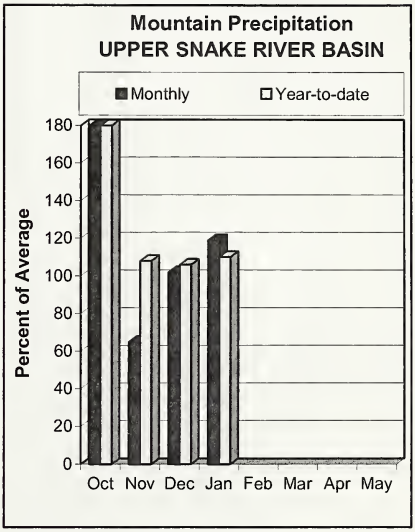
(2) - The value is natural flow - actual flow may be affected by upstream water management.

UPPER SNAKE BASINS
FEBRUARY 1, 2008





WATER SUPPLY OUTLOOK

The Upper Snake basin has had variable precipitation patterns. Some SNOTEL sites and snow courses indicate well above average snowpacks, while some sites have only 80% of average snow water equivalent. The best snowpacks are in the Henrys Fork and Falls River drainages at 108% of average, while drainages further south have fallen below average. Snowpacks are normal in the Teton River and Snake River above Jackson Lake; 102% in the Gros Ventre basin, 95% in the Snake River above Palisades Reservoir, 90% in the Salt River headwaters, 87% in the Greys and 84% in the Hoback. Overall, January precipitation was 119% of average and is 110% for the water year. These numbers reflect the fact that early season precipitation was in the form of rain in some of the mountains and January was a catch-up month for snow. Hopefully the trend will continue in the next two months as above average streamflows are needed to provide adequate irrigation supplies. Combined reservoir storage in Palisades and Jackson is 37% of capacity, 54% of average. Storage is 800,000 acre-feet less than last year, thus creating the need for a good snow year. American Falls Reservoir is 54% of capacity, 81% of average. Streamflow forecasts call for 95% of average volumes for most rivers in this region for the April-July period. The Surface Water Supply Index which combines reservoir storage and projected streamflow indicates water supplies will be marginally adequate for the Snake River near Heise if the current conditions hold true; this is based on the 50 percent exceedance streamflow forecast.

UPPER SNAKE RIVER BASIN

Streamflow Forecasts - February 1, 2008

Forecast Point	Forecast Period	<<====== Drier ====== Future Conditions ======= Wetter ======>> Chance Of Exceeding * 90% (1000AF)	70% (1000AF)	50% (Most Probable) (1000AF)	(% AVG.)	30% (1000AF)	10% (1000AF)	30-Yr Avg. (1000AF)
Henrys Fork nr Ashton	APR-JUL	425	505	560	98	620	715	570
	APR-SEP	580	675	740	97	810	920	765
Henrys Fork nr Rexburg	APR-JUL	1200	1370	1480	95	1590	1760	1560
	APR-SEP	1590	1770	1900	95	2030	2210	2010
Falls R nr Ashton	APR-JUL	295	340	370	97	400	455	380
	APR-SEP	355	405	440	98	480	535	450
Teton R nr Driggs	APR-JUL	115	141	160	97	181	215	165
	APR-SEP	142	175	200	95	225	270	210
Teton R nr St. Anthony	APR-JUL	285	345	390	96	440	510	405
	APR-SEP	340	415	465	97	520	605	480
Snake River At Flagg Ranch	APR-JUL	380	435	475	96	515	570	495
	APR-SEP	420	485	525	96	565	630	545
Snake R Nr Moran	APR-JUL	615	740	800	98	860	985	815
	APR-SEP	680	825	890	98	955	1100	905
Pacific Ck At Moran	APR-JUL	148	173	190	111	205	230	171
	APR-SEP	156	182	200	112	220	245	178
Snake R Nr Alpine	APR-JUL	1820	2190	2360	100	2530	2900	2370
	APR-SEP	2080	2510	2700	99	2890	3320	2730
Greys R Nr Alpine	APR-JUL	210	265	300	88	335	390	340
	APR-SEP	245	310	350	89	390	455	395
Salt R Nr Etna	APR-JUL	159	245	300	88	355	440	340
	APR-SEP	205	305	370	88	435	535	420
Snake R nr Irwin	APR-JUL	2400	2930	3170	95	3410	3940	3330
	APR-SEP	2800	3400	3670	95	3940	4540	3870
Snake R nr Heise	APR-JUL	2720	3110	3380	95	3650	4040	3560
	APR-SEP	3150	3600	3900	94	4200	4650	4160
Willow Ck nr Ririe	MAR-JUL	40	61	78	89	97	128	88
Blackfoot R ab Res nr Henry	APR-JUN	34	53	68	93	85	114	73
Portneuf R at Topaz	MAR-JUL	57	70	80	90	90	107	89
	MAR-SEP	69	85	96	88	108	127	109
Snake River at Neeley	APR-JUL	1550	2510	2940	91	3370	4330	3240
	APR-SEP	1720	2760	3230	92	3700	4740	3510

UPPER SNAKE RIVER BASIN

Reservoir Storage (1000 AF) - End of January

Reservoir	Usable Capacity	*** Usable Storage *** This Year	Last Year	Avg
HENRYS LAKE	90.4	77.8	82.8	83.2
ISLAND PARK	135.2	85.4	113.0	102.2
GRASSY LAKE	15.2	13.2	12.1	11.8
JACKSON LAKE	847.0	319.4	635.2	490.1
PALISADES	1400.0	503.2	984.0	1040.3
RIRIE	80.5	38.9	40.8	35.8
BLACKFOOT	348.7	83.3	168.4	220.1
AMERICAN FALLS	1672.6	906.1	1207.1	1125.4

UPPER SNAKE RIVER BASIN

Watershed Snowpack Analysis - February 1, 2008

Watershed	Number of Data Sites	This Year as % of Last Yr	Average
Henrys Fork-Falls River	10	158	108
Teton River	4	153	99
Henrys Fork above Rexburg	14	157	106
Snake above Jackson Lake	9	138	100
Gros Ventre River	3	143	102
Hoback River	5	125	84
Greys River	5	125	87
Salt River	5	127	90
Snake above Palisades	28	135	95
Willow Creek	3	137	95
Blackfoot River	4	138	94
Portneuf River	6	140	92
Snake abv American Falls	43	140	99

* 90%, 70%, 30%, and 10% chances of exceeding are the probabilities that the actual flow will exceed the volumes in the table.

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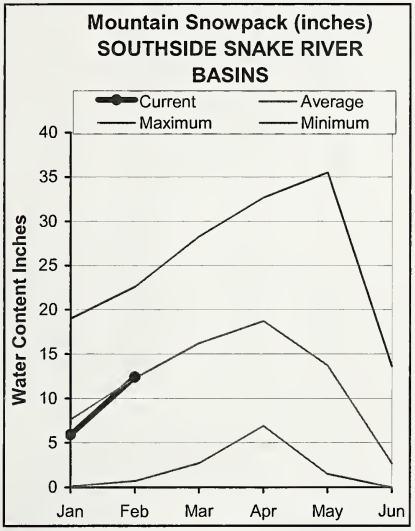
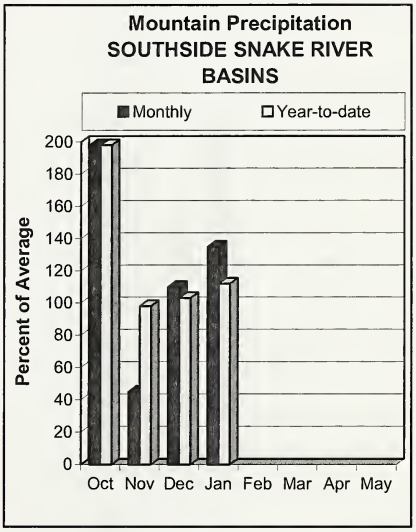
SOUTHSIDE SNAKE RIVER BASINS FEBRUARY 1, 2008





WATER SUPPLY OUTLOOK

Overall, the Southside Snake and Bear River basins showed the greatest improvement during the month of January. Last month, the snowpack in these southern basins was 66% of normal, and this month the snow is 101% of average! The snow ranges from 125% of average in the Owyhee Mountains, average in the Salmon Falls and Oakley basins and 94% in the Bruneau River. As of February 1 the Southside Snake basins snowpacks are near 60% of the April 1 peak, which indicates that we still need more snow to reach normal. The month of January made up for lost time as far as precipitation is concerned as these basins received 135% of average moisture, leaving the water year to date total at 112%. Last January was cold and dry and the basins only received 35% of normal precipitation. The storms that moved through the Southside Snake basins will provide some relief from summer water supply worries, but more snow is still needed because of the low reservoir storage. Current storage is 87% of average in Oakley Reservoir, 52% in Salmon Falls Reservoir, 75% in Wildhorse Reservoir, and 44% in Owyhee Reservoir. Oakley Reservoir inflow is forecast at 91% of average for the March-July period. Salmon Falls Creek and Bruneau River are forecast at 88% of normal. The Owyhee River below Owyhee Dam is forecast at 82% of average while Owyhee River near Rome is forecast at 86%. Air temperatures and future weather will determine how rapidly or gradually the abundant low elevation snowpack melts, but it's looking much better now than it did a month ago!

SOUTHSIDE SNAKE RIVER BASINS
Streamflow Forecasts - February 1, 2008

Forecast Point	Forecast Period	<<====== Drier ====== Future Conditions ======= Wetter ======>> Chance Of Exceeding * 90% (1000AF)	70% (1000AF)	50% (Most Probable) (1000AF)	50% (Most Probable) (% AVG.)	30% (1000AF)	10% (1000AF)	30-Yr Avg. (1000AF)
Oakley Reservoir Inflow	MAR-JUL	16.3	24	31	91	38	50	34
	MAR-SEP	17.2	26	33	89	41	54	37
OAKLEY RESV STORAGE	FEB-28	31	32	33	105	34	35	31
	MAR-31	35	37	39	108	41	43	36
	APR-30	38	42	44	107	46	50	41
Salmon Falls Ck nr San Jacinto	MAR-JUN	44	63	78	88	94	121	89
	MAR-JUL	46	66	82	88	99	128	93
	MAR-SEP	47	68	84	86	102	131	98
SALMON FALLS RESV STORAGE	FEB-28	28	31	33	55	35	38	60
	MAR-31	30	37	41	58	45	52	70
	APR-30	38	46	51	58	56	64	88
Bruneau R nr Hot Springs	MAR-JUL	115	165	205	87	250	320	235
	MAR-SEP	121	174	215	86	260	335	250
Owyhee R nr Gold Creek	MAR-JUL	11.8	18.4	24	75	31	43	32
	MAR-SEP	11.3	17.6	23	74	29	41	31
Owyhee R nr Owyhee	APR-JUL	24	51	69	84	87	114	82
Owyhee R nr Rome	FEB-JUL	280	440	565	86	710	950	655
	FEB-SEP	290	450	580	86	725	970	675
Owyhee R blw Owyhee Dam	FEB-JUL	42	325	575	82	825	1190	700
	FEB-SEP	36	330	590	81	850	1230	730
	APR-SEP	22	194	345	80	495	720	430
Reynolds Ck at Tollgate	MAR-JUL	5.4	7.5	9.2	95	11.0	14.1	9.7

SOUTHSIDE SNAKE RIVER BASINS
Reservoir Storage (1000 AF) - End of January

Reservoir	Usable Capacity	*** Usable Storage *** This Year	Last Year	Avg
OAKLEY	75.6	24.6	39.9	28.2
SALMON FALLS	182.6	28.9	73.8	55.7
WILDHORSE RESERVOIR	71.5	29.2	48.6	38.9
OWYHEE	715.0	191.8	466.9	438.3
BROWNLEE	1420.0	1019.7	1113.9	1176.3

SOUTHSIDE SNAKE RIVER BASINS
Watershed Snowpack Analysis - February 1, 2008

Watershed	Number of Data Sites	This Year as % of Last Yr	Average
Raft River	2	135	115
Goose-Trapper Creeks	3	125	99
Salmon Falls Creek	7	141	100
Bruneau River	8	153	94
Reynolds Creek	6	180	122
Owyhee Basin Total	18	273	125

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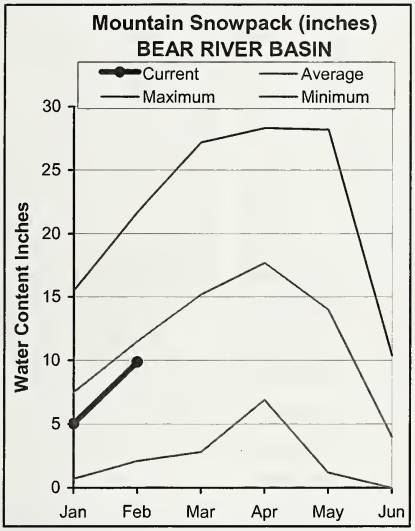
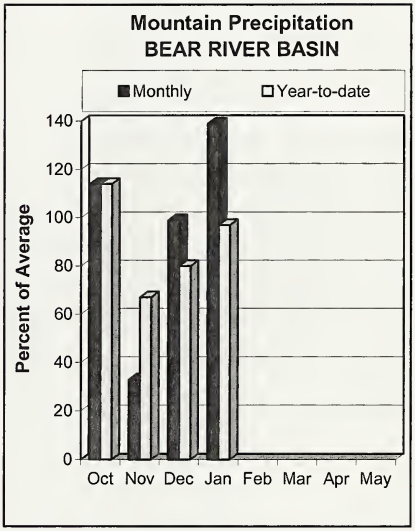
BEAR RIVER BASIN
FEBRUARY 1, 2008





WATER SUPPLY OUTLOOK

The Bear made bounding strides in January, even so it continues to trail the rest of the state. It's the only basin in Idaho with a below normal snowpack at 86% of average, but compared to January 1 at 66% of average, the leap to 86% is a welcome surprise. The jump was a result of 139% of average January precipitation and a more favorable storm track driving moisture inland from California. Since October, cumulative precipitation is 97% of average. Bear Lake storage increased 12,000 acre-feet in the last month. Current storage remains low at 357,000 acre-feet, 39% of average, 25% of capacity. The Bear River at Stewart Dam is forecast at 60% of average. However, the headwater streams in Utah are forecast near average and decrease to 91% for Smiths Fork; these are the primary contributors that provide flow at Stewart Dam. The Surface Water Supply Index which combines current reservoir storage and forecasted streamflow indicates that surface water supplies should be barely adequate based on the 50% chance of exceedance forecast. Expect water supplies similar to 1992 and 1993 based on this index. Hopefully the Bear basin will use its current storm track to carry its snowpack past 100% by winter's end. Based on history, such a come back would rival the New York Giants' Superbowl victory. Recent history shows that since 1991 only one year out of 15 years that a below average January 1 snowpack reached above average conditions by April 1.

BEAR RIVER BASIN
Streamflow Forecasts - February 1, 2008

Forecast Point	Forecast Period	<<====== Drier ====== Chance Of Exceeding *		Future Conditions ======= 50% (Most Probable)		Wetter ======>> Chance Of Exceeding *		30-Yr Avg.
		90% (1000AF)	70% (1000AF)	(1000AF)	(% AVG.)	30% (1000AF)	10% (1000AF)	(1000AF)
Bear River nr UT-WY State Line	APR-JUL	86	106	120	106	134	154	113
	APR-SEP	91	114	130	104	146	169	125
Bear River ab Reservoir nr Woodruff	APR-JUL	82	114	136	100	158	190	136
	APR-SEP	89	122	145	102	168	200	142
Big Creek nr Randolph	APR-JUL	2.9	4.0	4.8	98	5.6	6.7	4.9
Smiths Fork nr Border	APR-JUL	60	78	90	87	102	120	103
	APR-SEP	76	96	110	91	124	144	121
Bear River at Stewart Dam	APR-JUL	76	114	145	62	179	235	234
	APR-SEP	83	125	158	60	195	255	262
Little Bear River at Paradise	APR-JUL	22	32	40	87	49	64	46
Logan R Abv State Dam Nr Logan	APR-JUL	72	94	110	87	128	157	126
Blacksmith Fk Abv Up&L Dam Nr Hyrum	APR-JUL	28	39	48	100	58	74	48

BEAR RIVER BASIN
Reservoir Storage (1000 AF) - End of January

Reservoir	Usable Capacity	*** Usable Storage *** This Year	Last Year	Avg
BEAR LAKE	1421.0	357.0	532.2	906.1
MONTPELIER CREEK	4.0	1.1	2.1	1.7

BEAR RIVER BASIN
Watershed Snowpack Analysis - February 1, 2008

Watershed	Number of Data Sites	This Year as % of Last Yr	Average
Smiths & Thomas Forks	4	113	80
Bear River ab WY-ID line	10	141	91
Montpelier Creek	2	119	81
Mink Creek	1	152	93
Cub River	1	164	97
Bear River ab ID-UT line	18	142	91
Malad River	1	178	103

* 90%, 70%, 30%, and 10% chances of exceeding are the probabilities that the actual flow will exceed the volumes in the table.

(1) - The values listed under the 10% and 90% Chance of Exceeding are actually 5% and 95% exceedance levels.
(2) - The value is natural flow - actual flow may be affected by upstream water management.

Streamflow Adjustment List for All Forecasts Published in Idaho Water Supply Outlook Report: streamflow forecasts are projections of runoff volumes that would occur without influences from upstream reservoirs or diversions. These values are referred to as natural, unregulated or adjusted flows. To make these adjustments, changes in reservoir storage, diversions, and inter-basin transfers are added or subtracted from the observed (actual) streamflow volumes. The following list documents the adjustments made for each forecast point. **(Revised Nov. 2007).**

Panhandle River Basins

Kootenai R at Leonia, ID
+ Lake Koocanusa (Storage Change)
Boundary Ck nr Porthill, ID – No Corrections
Moyie R at Eastport, ID – No Corrections
Smith Creek nr Porthill, ID – No Corrections
Clark Fork R at Whitehorse Rapids, ID
+ Hungry Horse (Storage Change)
+ Flathead Lake (Storage Change)
+ Noxon Rapids Resv (Storage Change)
Pend Oreille Lake Inflow, ID
+ Pend Oreille R at Newport, WA
+ Hungry Horse (Storage Change)
+ Flathead Lake (Storage Change)
+ Noxon Rapids (Storage Change
+ Pend Oreille Lake (Storage Change)
+ Priest Lake (Storage Change)
Priest R nr Priest R, ID
+ Priest Lake (Storage Change)
NF Coeur d'Alene R at Enaville, ID - No Corrections
St. Joe R at Calder, ID - No Corrections
Spokane R nr Post Falls, ID
+ Coeur d'Alene Lake (Storage Change)
Spokane R at Long Lake, WA
+ Coeur d'Alene Lake (Storage Change)
+ Long Lake, WA (Storage Change)

Clearwater River Basin

Selway R nr Lowell - No Corrections
Lochsa R nr Lowell - No Corrections
Dworshak Resv Inflow, ID
+ Clearwater R nr Peck, ID
- Clearwater R at Orofino, ID
+ Dworshak Resv (Storage Change)
Clearwater R at Orofino, ID - No Corrections
Clearwater R at Spalding, ID
+ Dworshak Resv (Storage Change)

Salmon River Basin

Salmon R at Salmon, ID - No Corrections
Lemhi R nr Lemhi, ID – No Corrections
MF Salmon R at MF Lodge, ID – No Corrections
Salmon R at White Bird, ID - No Corrections

Weiser, Payette, Boise River Basins

Weiser R nr Weiser, ID - No Corrections
SF Payette R at Lowman, ID - No Corrections
Deadwood Resv Inflow, ID
+ Deadwood R blw Deadwood Resv nr Lowman
+ Deadwood Resv (Storage Change)
Lake Fork Payette R nr Mccall, ID – No Corrections
NF Payette R at Cascade, ID
+ Cascade Resv (Storage Change)
+ Payette Lake (Storage Change)
NF Payette R nr Banks, ID
+ Cascade Resv (Storage Change)
+ Payette Lake (Storage Change)
Payette R nr Horseshoe Bend, ID
+ Cascade Resv (Storage Change)
+ Deadwood Resv (Storage Change)
+ Payette Lake (Storage Change)
Boise R nr Twin Springs, ID - No Corrections
SF Boise R at Anderson Ranch Dam, ID
+ Anderson Ranch Resv (Storage Change)
Boise R nr Boise, ID
+ Anderson Ranch Resv (Storage Change)
+ Arrowrock Resv (Storage Change)
+ Lucky Peak Resv (Storage Change)

Wood and Lost River Basins

Big Wood R at Hailey, ID - No Corrections
Big Wood R abv Magic Resv, ID
+ Big Wood R nr Bellevue, ID
+ Willow Ck
Camas Ck nr Blaine – No Corrections
Big Wood R blw Magic Dam nr Richfield, ID
+ Magic Resv (Storage Change)
Little Wood R abv High Five Ck, ID – No Corrections
Little Wood R nr Carey, ID
+ Little Wood Resv (Storage Change)
Big Lost R at Howell Ranch, ID - No Corrections
Big Lost R blw Mackay Resv nr Mackay, ID
+ Mackay Resv (Storage Change)
Little Lost R blw Wet Ck nr Howe, ID - No Corrections

Upper Snake River Basin

Henrys Fork nr Ashton, ID
+ Henrys Lake (Storage Change)
+ Island Park Resv (Storage Change)
Henrys Fork nr Rexburg, ID
+ Henrys Lake (Storage Change)
+ Island Park Resv (Storage Change)
+ Grassy Lake (Storage Change)
+ Diversions from Henrys Fk btw Ashton to St. Anthony, ID
+ Diversions from Henrys Fk btw St. Anthony to Rexburg, ID
+ Diversions from Falls R abv nr Ashton, ID
+ Diversions from Falls R nr Ashton to Chester, ID
Falls R nr Ashton, ID
+ Grassy Lake (Storage Change)
+ Diversions from Falls R abv nr Ashton, ID
Teton R nr Driggs, ID - No Corrections
Teton R nr St. Anthony, ID
- Cross Cut Canal into Teton R
+ Sum of Diversions for Teton R abv St. Anthony, ID
Snake R nr Moran, WY
+ Jackson Lake (Storage Change)
Pacific Ck at Moran, WY – No Corrections
Snake R abv Palisades, WY
+ Jackson Lake (Storage Change)

Greys R abv Palisades, WY – No Corrections
Salt R abv Palisades, WY – No Corrections
Snake R nr Irwin, ID
+ Jackson Lake (Storage Change)
+ Palisades Resv (Storage Change)
Snake R nr Heise, ID
+ Jackson Lake (Storage Change)
+ Palisades Resv (Storage Change)
Willow Ck nr Ririe, ID
+ Ririe Resv (Storage Change)
Blackfoot Resvervoir Inflow, ID
+ Blackfoot Reservoir releases
+ Blackfoot Resv (Storage Change
Portneuf R at Topaz, ID - No Corrections
Snake River at Neeley, ID
+ Snake River at Neeley (observed)
+ All Corrections made for Henrys Fk nr Rexburg, ID
+ Jackson Lake (Storage Change)
+ Palisades Resv (Storage Change)
+ Diversions from Snake R btw Heise and Shelly
+ Diversions from Snake R btw Shelly and Blackfoot

Southside Snake River Basins
Oakley Resv Inflow, ID
+ Goose Ck abv Trapper Ck
+ Trapper Ck nr Oakley
Salmon Falls Ck nr San Jacinto, NV - No Corrections
Bruneau R nr Hot Springs, ID - No Corrections
Owyhee R nr Gold Ck, NV
+ Wildhorse Resv (Storage Change)
Owyhee R nr Rome, OR – No Corrections
Owyhee R blw Owyhee Dam, OR
+ Owyhee R blw Owyhee Dam, OR (observed)
+ Owyhee Resv (Storage Change)
+ Diversions to North and South Canals
Snake R at King Hill, ID - No Corrections
Snake R nr Murphy, ID - No Corrections
Snake R at Weiser, ID - No Corrections
Snake R at Hells Canyon Dam, ID
+ Brownlee Resv (Storage Change)
Bear River Basin
Bear R nr UT-WY Stateline, UT – No Corrections
Bear R abv Resv nr Woodruff, UT – No Corrections
Smiths Fork nr Border, WY - No Corrections
Bear R blw Stewart Dam nr Montpelier, ID
+ Bear R blw Stewart Dam
+ Rainbow Inlet Canal

Reservoir Capacity Definitions (Units in 1,000 Acre-Feet, KAF)
Different agencies use various definitions when reporting reservoir capacity and contents. Reservoir storage terms include dead, inactive, active, and surcharge storage. This table lists these volumes for each reservoir, and defines the storage volumes NRCS uses when reporting capacity and current reservoir storage. In most cases, NRCS reports usable storage, which includes active and inactive storage. **(Revised Nov. 2007)**

Basin/ Reservoir	Dead Storage	Inactive Storage	Active Storage	Surcharge Storage	NRCS Capacity	NRCS Capacity Includes
Panhandle Region						
Hungry Horse	39.73	--	3451.00	--	3451.0	Active
Flathead Lake	Unknown	--	1791.00	--	1791.0	Active
Noxon Rapids	Unknown	--	335.00	--	335.0	Active
Pend Oreille	406.20	112.40	1042.70	--	1561.3	Dead+Inactive+Active
Coeur d'Alene	--	13.50	225.00	--	238.5	Inactive+Active
Priest Lake	20.00	28.00	71.30	--	119.3	Dead+Inactive+Active
Clearwater Basin						
Dworshak	--	1452.00	2016.00	--	3468.0	Inactive+Active
Weiser/Boise/Payette Basins						
Mann Creek	1.61	0.24	11.10	--	11.1	Active
Cascade	--	46.70	646.50	--	693.2	Inactive+Active
Deadwood	--	--	161.90	--	161.9	Active
Anderson Ranch	24.90	37.00	413.10	--	450.1	Inactive+Active
Arrowrock	--	--	272.20	--	272.2	Active
Lucky Peak	--	28.80	264.40	13.80	293.2	Inactive+Active
Lake Lowell	7.90	5.80	159.40	--	165.2	Inactive+Active
Wood/Lost Basins						
Magic	Unknown	--	191.50	--	191.5	Active
Little Wood	--	--	30.00	--	30.0	Active
Mackay	0.13	--	44.37	--	44.4	Active
Upper Snake Basin						
Henrys Lake	--	--	90.40	--	90.4	Active
Island Park	0.40	--	127.30	7.90	135.2	Active+Surcharge
Grassy Lake	--	--	15.18	--	15.2	Active
Jackson Lake	Unknown	--	847.00	--	847.0	Active
Palisades	44.10	155.50	1200.00	--	1400.0	Dead+Inactive+Active
Ririe	4.00	6.00	80.54	10.00	80.5	Active
Blackfoot	--	--	348.73	--	348.7	Active
American Falls	--	--	1672.60	--	1672.6	Active
Southside Snake Basins						
Oakley	0	--	75.60	--	75.6	Active
Salmon Falls	48.00	5.00	182.65	--	182.6	Active+Inactive
Wildhorse	--	--	71.50	--	71.5	Active
Owyhee	406.83	--	715.00	--	715.0	Active
Brownlee	0.45	444.70	975.30	--	1420.0	Inactive+Active
Bear River Basin						
Bear Lake	5.0 MAF	119.0	1302.00	--	1421.0	Active+Inactive: includes 119 that can be released
Montpelier Creek	0.21	--	3.84	--	4.0	Dead+Active

Interpreting Water Supply Forecasts

Introduction
Each month, five forecasts are issued for each forecast point and each forecast period. Unless otherwise specified, all streamflow forecasts are for streamflow volumes that would occur naturally without any upstream influences. Water users need to know what the different forecasts represent if they are to use the information correctly when making operational decisions. The following is an explanation of each of the forecasts.

90 Percent Chance of Exceedance Forecast. There is a 90 percent chance that the actual streamflow volume will exceed this forecast value, and there is a 10 percent chance that the actual streamflow volume will be less than this forecast value.

70 Percent Chance of Exceedance Forecast. There is a 70 percent chance that the actual streamflow volume will exceed this forecast value, and there is a 30 percent chance that the actual streamflow volume will be less than this forecast value.

50 Percent Chance of Exceedance Forecast. There is a 50 percent chance that the actual streamflow volume will exceed this forecast value, and there is a 50 percent chance that the actual streamflow volume will be less than this forecast value. Generally, this forecast is the middle of the range of possible streamflow volumes that can be produced given current conditions.

30 Percent Chance of Exceedance Forecast. There is a 30 percent chance that the actual streamflow volume will exceed this forecast value, and there is a 70 percent chance that the actual streamflow volume will be less than this forecast value.

10 Percent Chance of Exceedance Forecast. There is a 10 percent chance that the actual streamflow volume will exceed this forecast value, and there is a 90 percent chance that the actual streamflow volume will be less than this forecast value.

*Note: There is still a 20 percent chance that actual streamflow volumes will fall either below the 90 percent exceedance forecast or above the 10 percent exceedance forecast.

These forecasts represent the uncertainty inherent in making streamflow predictions. This uncertainty may include sources such as: unknown future weather conditions, uncertainties associated with the various prediction methodologies, and the spatial coverage of the data network in a given basin.

30-Year Average. The 30-year average streamflow for each forecast period is provided for comparison. The average is based on data from 1971-2000. The % AVG. column compares the 50% chance of exceedance forecast to the 30-year average streamflow; values above 100% denote when the 50% chance of exceedance forecast would be greater than the 30-year average streamflow.

AF - Acre-feet, forecasted volume of water are typically in thousands of acre-feet.

These forecasts are given to users to help make risk-based decisions. Users can select the forecast corresponding to the level of risk they are willing to accept in order to minimize the negative impacts of having more or less water than planned for.

To Decrease the Chance of Having Less Water than Planned for
A user might determine that making decisions based on a 50 percent chance of exceedance forecast is too much risk to take (there is still a 50% chance that the user will receive less than this amount). To reduce the risk of having less water than planned for, users can base their operational decisions on one of the forecasts with a greater chance of being exceeded such as the 90 or 70 percent exceedance forecasts.

To Decrease the Chance of Having More Water than Planned for
A user might determine that making decisions based on a 50 percent chance of exceedance forecast is too much risk to take (there is still a 50% chance that the user will receive more than this amount). To reduce the risk of having more water than planned for, users can base their operational decisions on one of the forecasts with a lesser chance of being exceeded such as the 30 or 10 percent exceedance forecasts.

Using the forecasts - an Example
Using the 50 Percent Exceedance Forecast. Using the example forecasts shown below, there is a 50% chance that actual streamflow volume at the Boise River near Twin Springs will be less than 685 KAF between April 1 and July 31. There is also a 50% chance that actual streamflow volume will be greater than 685 KAF.

Using the 90 and 70 Percent Exceedance Forecasts. If an unexpected shortage of water could cause problems (such as irrigated agriculture), users might want to plan on receiving 610 KAF (from the 70 percent exceedance forecast). There is a 30% chance of receiving *less* than 610 KAF.

Alternatively, if users determine the risk of using the 70 percent exceedance forecast is too great, then they might plan on receiving 443 KAF (from the 90 percent exceedance forecast). There is 10% chance of receiving less than 443 KAF.

Using the 30 or 10 Percent Exceedance Forecasts. If an unexpected excess of water could cause problems (such as operating a flood control reservoir), users might plan on receiving 760 KAF (from the 30 percent exceedance forecast). There is a 30% chance of receiving *more* than 760 KAF.

Alternatively, if users determine the risk of using the 30 percent exceedance forecast is too great, then they might plan on receiving 927 KAF (from the 10 percent exceedance forecast). There is a 10% chance of receiving more than 927 KAF.

Users could also choose a volume in between any of these values to reflect their desired risk level.

Weiser, Payette, Boise River Basins
Streamflow Forecasts – January 2006

Forecast Point	Forecast Period	Chance of Exceeding * 90% (1000AF)	70% (1000AF)	50% (1000 AF)	50% (% AVG.)	30% (1000AF)	10% (1000AF)	30-Yr Avg. (1000AF)
SF PAYETTE RIVER at Lowman	APR-JUL	329	414	471	109	528	613	432
	APR-SEP	369	459	521	107	583	673	488
BOISE RIVER near Twin Springs (1)	APR-JUL	443	610	685	109	760	927	631
	APR-SEP	495	670	750	109	830	1005	690

*90%, 70%, 30%, and 10% chances of exceeding are the probabilities that the actual flow will exceed the volumes in the table

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NRCS, National Water and Climate Center, Portland, Oregon

Cooperative funding for printing provided by
Idaho Department of Water Resources

Numerous other agencies provide funding and/or
cooperative support for the collection, operation
and maintenance of the Snow Survey Program.
Their cooperation is greatly appreciated.